

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

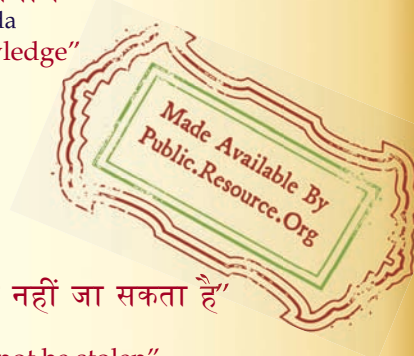
IS 6464 (2000): ENT Diagnostic Instruments - Tuning Forks
(Gardiner Brown's Pattern) [MHD 4: Ear, Nose and Throat
Surgery Instruments]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक
ईएनटी नैदानिक उपकरण — ट्यूनिंग फोर्क
(गार्डीनर ब्राउन पैटर्न) — विशिष्टि
(पहला पुनरीक्षण)

Indian Standard
ENT DIAGNOSTIC INSTRUMENTS —
TUNING FORKS (GARDINER BROWN'S PATTERN) —
SPECIFICATION
(*First Revision*)

ICS 11.040.55

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BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Ear, Nose and Throat Surgical Instruments Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

This Indian Standard was first published in 1972. The first revision of the standard has been undertaken to align it with the present manufacturing techniques. In this revision decrement time has been defined and test methods to determine the frequency and decrement time have been introduced.

There is no ISO/IEC standard on the subject. This standard has been prepared based on indigenous manufacturers' data/practices prevalent in the field in India.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

ENT DIAGNOSTIC INSTRUMENTS — TUNING FORKS (GARDINER BROWN'S PATTERN) — SPECIFICATION (First Revision)

1 SCOPE

This standard specifies dimensional and other requirements for a set of tuning forks (Gardiner Brown's pattern) used by ENT surgeons as diagnostic equipment.

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

<i>IS No.</i>	<i>Title</i>
1068 : 1993	Electroplated coatings of nickel plus chromium and copper plus nickel plus chromium — Specification (<i>third revision</i>)
1875 : 1992	Carbon steel billets, blooms, slabs and bars for forgings (<i>fifth revision</i>)

3 TERMINOLOGY

Decrement Time

The period of time during which the tuning fork keeps vibrating after it is struck on a pad.

4 SHAPE AND DIMENSIONS

The shape and dimensions shall be as shown in Fig. 1

5 MATERIAL

The tuning forks shall be made of carbon steel conforming to Class 4 Designation C45 of IS 1875.

6 MANUFACTURE, WORKMANSHIP AND FINISH

6.1 The tuning forks shall be forged to shape and sizes shown in Fig. 1. They shall be free from pits, cracks, seams and other surface defects.

6.2 The grooves shall be regular and well-formed.

6.3 The rivetting and silver soldering shall be neat and sound.

6.4 The surfaces of tuning forks shall be rounded and finished smooth.

6.5 The tuning forks shall be plated chromium over

nickel and the plating shall conform to Service Grade No. 2 of IS 1068.

7 TESTS

7.1 Decrement Time

The note produced by the tuning fork shall be a long and continuous one. The decrement time shall be not less than 30 seconds.

7.2 Frequency Test

The frequency marked on the tuning forks shall not vary by more than ± 0.2 percent when tested with the help of an oscilloscope or a frequency analyser at $25 \pm 2^\circ\text{C}$.

8 FREQUENCY

A complete set of tuning forks shall consist of one fork each of the following frequencies:

128 Hz, 256 Hz, 512 Hz, 1024 Hz, 2048 Hz and 4096 Hz.

9 MARKING

9.1 Each tuning fork shall be marked with the following information:

- a) Indication of the source of manufacture, and
- b) Frequency of tuning fork.

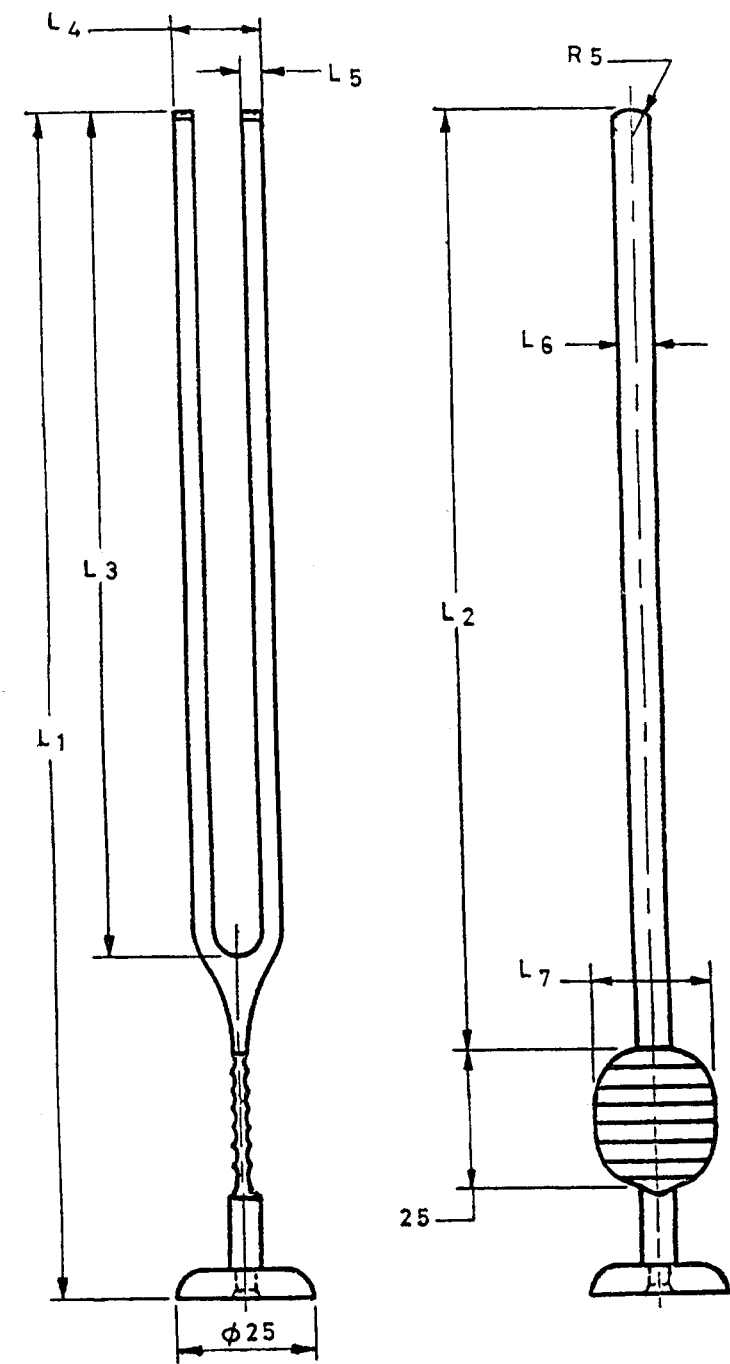
9.2 BIS Certification Marking

The tuning forks may also be marked with the Standard Mark.

9.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers, may be obtained from the Bureau of Indian Standards.

10 PACKING

Each set shall be packed in a wooden box having specific cut out positions for keeping each size of fork.



Frequency						
Hz	L_1	L_2	L_3	L_4	L_5	L_6
128	215	170	153	16	3.5	7
256	170	125	109	16	3.5	7
512	138	93	75	16	3.5	7
1 024	117	72	55	16	4.0	6.5
2 048	130	85	55	22	8.0	8.5
4 096	115	70	38	22	8.0	8.5

All dimensions in millimetres.

FIG. 1 FORKS TUNING, GARDINER BROWN'S PATTERN

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This Indian Standard has been developed from Doc: No. MHD 4 (2584).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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